SN-3200 Series LAN Card

User Guide

Table of Contens

Fcc Compliance Statement *1*
Section 1 Introduction *3*
Section 2 Installation..... *4*
Section 3 Configuration and Diagnostics *5*
Section 4 Drivers Installation..... *6*
Section 5 Boot ROM installation *7*
Section 6 Cable Specifications *8*
Section 7 Trouble shooting *9*
Section 8 Specifications..... *10*

SN-3200 Series Ethernet Network Interface Card for PCI Bus PC Installation Guide

FCC Compliance Statement

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide.

Reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined

by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase there separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- consult the dealer or an experienced radio/TV technician for help.

Introduction

Your PCI-based adapter is a high performance Ethernet adapter that is NE2000 compatible. The Ethernet adapter is based upon Industry Standard PCI Local Bus Specification 2.0, that features Plug-and-Play (PnP) function, making it fully auto-configurable.

The Ethernet adapter offers the network medium selection of 10BASE-T(RJ-45),or 10BASE2(BNC) connection. It also includes 16K buffer RAM for faster network transmission and reception, and two LEDs for trouble shooting.

The Ethernet adapter includes a complete set of drivers for all popular Network Operation Systems. It is also compatible with all NE2000 drivers supplied by your Network Operating Systems. Especially, the Ethernet adapter is Microsoft Windows 95 compatible. The optional BOOT ROM device allows the diskless workstation to be connected to the network.

Installation

This section describes how to install your Ethernet adapter. Perform the following steps to install the adapter.

1. Turn off your computer and all peripherals.
2. Make a note of the cables and cords that are connected to the computer and disconnect them.
3. Remove your personal computer's cover (refer to the owner's manual of your personal computer).
4. Select any available PC slot, and remove the slot cover.
5. Carefully install the Ethernet adapter into the expansion slot by firmly pressing the card into the edge of the connector slot until the adapter is snugly seated in the expansion slot and fasten the retaining bracket with screw from the slot cover.
6. Reinstall your personal computer's cover and reconnect the power cord and all cables.
7. Connect the Ethernet cable to your personal computer.

Note *System Requirements: A PC and BIOS that support the PCI Local Bus Specification 2.0*

Configuration and Diagnostics

Your Ethernet adapter is automatically configured when you power-up your computer, In certain computers, however, you must modify your BIOS by entering your CMOS SETUP utility.

To view the configuration parameters assigned by the BIOS, insert the software diskette into your drive and execute the utility software.

Before you install the drivers and connect the adapter to the network, make sure to run the diagnostics to assure the proper function of the adapter. The diagnostics includes two groups of test:

1. Card initialization and test

   This test is a series of tests designed to check Network Controller Registers, on-board RAM, Internal Loop back and Interrupt Generation.

2. Advanced Network test

   This test verifies that the network cable is connected, so that the adapter can transmit and receive data.

   The test requires two computers. One computer, configured as the Master, generates and sends test messages. The other computer, configured as the Slave, receives messages and transmits them back to the Master. Results can be viewed on both the Master and Slave computers. A screen menu provides you with the instructions to conduct this test.

Note: *Run the Card Initialization and Test before running the Advance Network Test to ensure that adapter's basic functions are working properly.*

Drivers Installation

Before you connect your adapter to the network, you have to install the driver first. The Ethernet adapter is fully NE2000 compatible and can use any NE2000 compatible driver that is included in your Networking Operation System. You can also use the drivers supplied by the software diskette that is compatible with your Networking Operating System. The driver for each Networking Operation System is under a separate directory. Each directory includes a README.TXT fileto describe the detailed installation procedure. A RELEASE.TXT file under root directory lists the information of all the available drivers.

BOOT ROM Installation

The optional BOOT ROM device allows you to connect a diskless workstation to the network. Perform the following steps to install your BOOT ROM device.

1. Insert the BOOT ROM into the socket on the adapter.

2. Execute the setup file to enable the BOOT ROM function by selecting the appropriate BOOT ROM size.

3. Refer to the installation procedure provided by your Networking Operation System. Here lists the reference subjects under three commonly used Networking Operation Systems.

Novel Netware:	DOSGEN
Microsoft LAN MANAGER:	Starting remote booting service
3COM 3+LAN MANAGER:	Creating a startup volume

Cable Specifications

The Ethernet adapter has three connector alternatives.

Each connector requires a different cable. This section describes each cable's specification.

Cable for RJ-45 connector for 10BASE-T network

Cable type:	UTP with 2 twisted pairs of 22,24 or 26 AWG
Twists per foot:	2 to 3(min.)
Nominal impedance:	100 onms
Maximum cable length:	300'(100m)
Maximum Attention:	8 to 10 dB per 100m at 10Mz

Cable for thin coaxial BNC connector for 10BASE2 network

Cable type:	RG-58A/U or RE-58C/U
Minimum distance:	0.5m(between two nodes)
Maximum segment length:	185m
Maximum nodes per segment:	30

Note: *The coaxial cable must be terminated by a 50-ohm terminator at both ends.*

Trouble shooting

This section describes reasons for some adapter's failures and the actions to be taken to resolve the problems.

- PCI scan specifcied device not found

  Action: Verify that the PCI Ethernet adapter is physically installed properly, otherwise, replace the adapter.

- Connection failure if using an unshielded twisted pair(UTP) cable

  Action: Verify that the UTP cable is firmly attached.

- Connection failure if using coaxial cable

  Action: Verify that the coaxial cable is properly terminated.

Specifications

IEEE 802.3 Standard:	10BASE-T, and 10BASE2
Wiring Connector:	RJ-45, and BNC
Bus Characteristics:	32 bits ; PCI Local Bus Specification 2.0
I/O address:	being assigned by the BIOS to a free I/O address block
IRQ line:	INTA ; being assigned by the BIOS to a free IRQ (interrupt) number
BOOK ROM Size:	8KB,16KB,and 32KB
Dimensions:	4.73" x 3.15"
FCC Compliance:	FCC Class B
Power Consumption:	2.5w
Operating Temperature:	0 to 55 degrees centigrade
Operating Humidity:	10 to 90%, non-condensing